

THE CLAIMS

What is claimed is:

1. An installation for treating semiconductor wafers comprising:
a tank adapted to contain a treatment bath and equipped with a wafer-
holding device capable of receiving at least one wafer of a first size;
a gripping element for grasping each wafer of the first size and for
5 placing it into and removing it from the tank;
a support adapter for receiving wafers of a second size smaller than the
first size, the support adapter having a structure that permits it to be grasped directly
by the gripping element and held by the wafer-holding device; and
at least one rotation-blocking element for preventing the support adapter from
10 rotating relative to the wafer-holding device when the support adapter is positioned
in the wafer-holding device.
2. The installation of claim 1 wherein the rotation-blocking element
comprises at least one shaped feature of the support adapter that cooperates with a
15 shaped feature of the wafer-holding device.
3. The installation of claim 2 wherein the support adapter has a circular
shape that corresponds to the contour of a wafer of the first size and includes at least
one protruding element that cooperates with a limit stop of the wafer-holding device.
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4. The installation of claim 2 wherein the support adapter is U-shaped and
includes a generally circular first part that corresponds to the shape of a wafer of the
first size, and includes straight portions that cooperate with a limit stop of the wafer-
holding device.
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5. The installation of claim 3 wherein the limit stop of the wafer-holding
device includes at least one discrete element.

6. The installation of claim 5 wherein the limit stop comprises a shoulder.

7. The installation of claim 1 wherein the support adapter comprises two plates shaped so that at least one portion of each plate is substantially similar to that of a wafer of the first size, and support elements fixed to the plates that are capable of holding a batch of wafers of the second size and that join the plates together.

8. An installation for treating semiconductor wafers comprising:
a tank adapted to contain a treatment bath and equipped with a wafer-holding device capable of receiving at least one wafer of a first size;
a gripping element for grasping each wafer of the first size and for placing it into and removing it from the tank; and
a support adapter for receiving wafers of a second size smaller than the first size, the support adapter having a structure that permits it to be grasped directly by the gripping element and held by the wafer-holding device, the support adapter including two plates shaped so that at least one portion of each plate is substantially similar to that of a wafer of the first size, and including support elements fixed to the plates to join them together, wherein the support elements are capable of holding a batch of wafers of the second size.

9. The installation of claim 8 further comprising cooperating elements associated with the support elements and the plates that prevent rotation of the support elements in relation to the plates.

10. The installation of claim 9 wherein the cooperating elements comprise recesses in the plates and substantially similarly shaped end portions of the support elements.

11. The installation of claim 8 further comprising slots in the support elements capable of holding a batch of wafers of the second size.

12. The installation of claim 11 wherein the slots have a V-shaped profile that forms a single angle.
13. The installation of claim 12 wherein the single angle has a value ranging
5 from between about 40° to about 60°.
14. The installation of the claim 13 wherein the single angle is approximately 45°.
- 10 15. A support adapter for use in an installation for treating semiconductor wafers of a first size and wafers of a second, smaller size, the support adapter having a structure that permits it to be grasped directly by a gripping element and held by a wafer-holding device, comprising:
two plates shaped so that at least one portion of each plate is substantially
15 similar to that of a wafer of the first size;
a plurality of support elements fixed to the plates to join them together, the support elements capable of holding a batch of wafers of the second size; and
at least one rotation-blocking element for preventing the support adapter from rotating relative to the wafer-holding device when the support adapter is positioned
20 in the wafer-holding device.
16. The support adapter of claim 15 wherein the rotation-blocking element comprises at least one shaped feature of the support adapter that cooperates with a shaped feature of the wafer-holding device.
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17. The support adapter of claim 15 wherein the support adapter has an overall circular shape and includes a protruding rotation-blocking element that cooperates with a limit stop of the wafer-holding device.
- 30 18. The support adapter of claim 15 wherein the support adapter is U-shaped and includes a generally circular first part and straight portions that cooperate with a

limit stop of the wafer-holding device.

19. The support adapter of claim 15 further comprising cooperating elements associated with the support elements and the plates that prevent rotation of the support elements in relation to the plates.

20. The support adapter of claim 19 wherein the cooperating elements comprise recesses in the plates and substantially similarly shaped end portions of the support elements.

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21. The support adapter of claim 15 further comprising slots in the support elements capable of holding a batch of wafers of the second size.

22. The support adapter of claim 21 wherein the slots have a V-shaped profile that forms a single angle.

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23. The support adapter of claim 22 wherein the single angle has a value ranging from between about 40° to about 60°.

20 24. The support adapter of the claim 22 wherein the single angle is approximately 45°.

25. The support adapter of claim 15 wherein the plates and support elements are made of a polyvinylidene fluoride material.

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26. The support element of claim 15 further comprising at least one detection rod fastened between the plates.

27. The support element of claim 15 wherein each plate has a reduced thickness edge that enables the plate to be held inside the wafer-holding device.

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- 28.** The support element of claim 27 wherein the reduced thickness edge has a beveled profile.